IN THE CLAIMS

Please cancel Claims 1-22. Please add new 23-52:

SN B1

23. (new) An olefin polymerization method comprising the steps of contacting a polymerizable olefin with a supported catalyst composition comprising one or more fluorided support compositions; one or more metallocenes; and one or more activators, characterised in that the degree of fluoridation of the support allows association between the fluorided support and one or more activators such that when contacted with one or more metallocenes and α-olefin monomers, the supported catalyst composition exhibits a productivity of from 919 to 6012 g polymer/g metallocene·hr.

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24. (new) The method of Claim 23, wherein the activity of the composition is from 38.8 to 207.3 kg polymer/mM metallocene·hr.

25. (new) The method of Claim 23, the support having a fluorine concentration is in the range of from 0.01 to 10.0 millimoles of fluorine per gram of support.

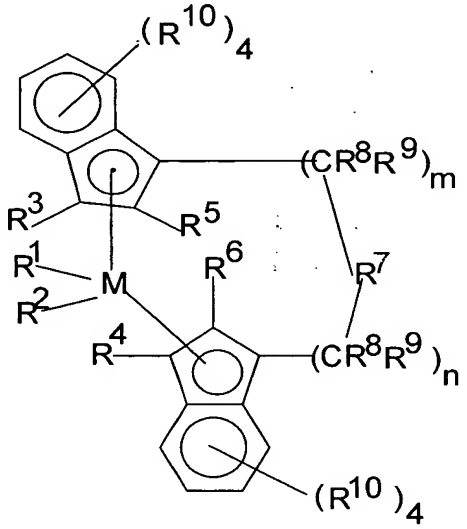
26. (new) The method of Claim 23, the support having a fluorine concentration is in the range of from 0.6 to 3.5 wt% of the support.

27. (new) The method of Claim 23, wherein the one or more activators are selected from alkylalumoxanes (MAO), non-coordinating anions, and activator anion neutral precursors, and combinations thereof.

28. (new) The method of Claim 23, wherein the one or more activators is selected from highly fluorinated tris-arylborane compounds and mixtures thereof.

29. (new) The method of Claim 23, wherein the activator is selected from tris-perfluorophenyl borane, trisperfluoronaphthyl borane, trisperfluorobiphenyl borane, tris(3,5-di(trifluoromethyl)phenyl)borane, tris(di-t-butylmethylsilyl)perfluorophenylborane, and mixtures thereof.

30. (new) The method of Claim 23, wherein the one or more metallocenes is represented by the following:

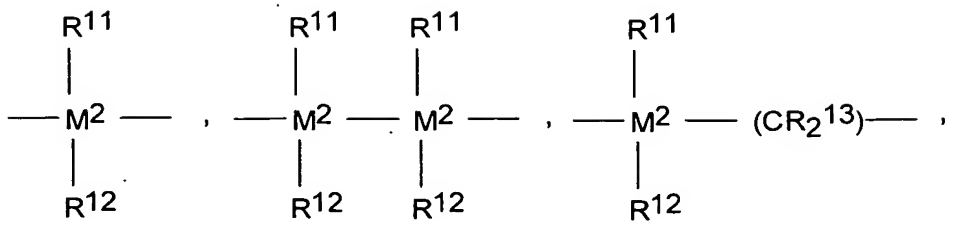


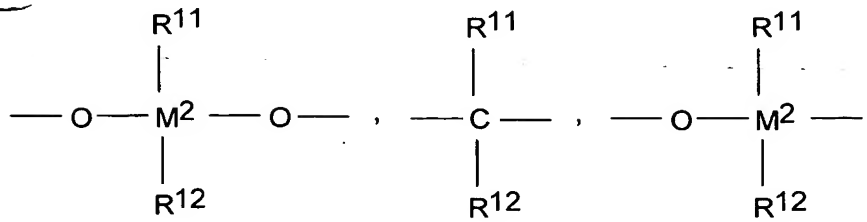
wherein M is a metal of Group 4, 5, or 6 of the Periodic Table;

R^1 and R^2 are identical or different, and are one of a hydrogen atom, a C_1-C_{10} alkyl group, a C_1-C_{10} alkoxy group, a C_6-C_{10} aryl group, a C_6-C_{10} aryloxy group, a C_2-C_{10} alkenyl group, a C_7-C_{40} arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, or a halogen atom;

R^5 and R^6 are identical or different, are one of a halogen atom, a C_1-C_{10} alkyl group, which may be halogenated, a C_6-C_{10} aryl group, which may be halogenated, a C_2-C_{10} alkenyl group, a C_7-C_{40} -arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, a $-NR_2^{15}$, $-SR^{15}$, $-OR^{15}$, $-OSiR_3^{15}$ or $-PR_2^{15}$ radical, wherein R^{15} is one of a halogen atom, a C_1-C_{10} alkyl group, or a C_6-C_{10} aryl group;

R^7 is





$-B(R^{11})-$, $-Al(R^{11})-$, -Ge-, -Sn-, -O-, -S-, -SO-, $-SO_2-$, $-N(R^{11})-$, -CO-, $-P(R^{11})-$, or $-P(O)(R^{11})-$;

wherein R^{11}, R^{12} and R^{13} are identical or different and are a hydrogen atom, a halogen atom, a C_1-C_{20} alkyl group, a C_1-C_{20} fluoroalkyl group, a C_6-C_{30} aryl group, a C_6-C_{30} fluoroaryl group, a C_1-C_{20} alkoxy group, a C_2-C_{20} alkenyl group, a C_7-C_{40} arylalkyl group, a C_8-C_{40} arylalkenyl group, or a C_7-C_{40} alkylaryl group; and wherein R^{11} and R^{12}, or R^{11} and R^{13}, together with the atoms binding them, can form ring systems;

M^2 is silicon, germanium or tin;

R^8 and R^9 are identical or different and have the meanings stated for R^{11};

m and n are identical or different and are zero, 1 or 2, m plus n being zero, 1 or 2; and

the radicals R^3, R^4, and R^{10} are identical or different and have the meanings stated for R^{11}, R^{12} and R^{13}.

31. (new) The method of Claim 23, wherein the one or more metallocenes is selected from Dimethylsilandiylbis (2-methyl-4-phenyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,5-benzoindenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,6-diisopropylindenyl) zirconium dimethyl; Dimethylsilandiylbis(2-ethyl-4-

phenyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis (2-ethyl-4-naphthyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4-(1-naphthyl)-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4-(2-naphthyl)-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,5-diisopropyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2,4,6-trimethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-ethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2,5,6-trimethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis (2-methyl-4-phenyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,5-benzoindenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,6-diisopropylindenyl) zirconium dichloride; Dimethylsilandiylbis(2-ethyl-4-phenyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis (2-ethyl-4-naphthyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4-(1-naphthyl)-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4-(2-naphthyl)-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,5-diisopropyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2,4,6-trimethyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-ethyl-1-indenyl) zirconium dichloride, and Dimethylsilandiylbis(2,5,6-trimethyl-1-indenyl) zirconium dichloride, and mixtures thereof.

32. (new) The method of Claim 28, wherein the fluorided support composition is selected from the following fluorided supports: talc, clay, silica, alumina, magnesia, zirconia, iron oxides, boria, calcium oxide, zinc oxide, barium oxide thoria, aluminum phosphate gel, polyvinylchloride or substituted polystyrene, and mixtures thereof.

11 33. (new) The method of Claim 1 23, wherein the supported catalyst composition exhibits a productivity of from 919 to 5180 g polymer/g metallocene·hr.

12 34. (new) The method of Claim 1 23, wherein the supported catalyst composition exhibits a productivity of from 1125 to 6012 g polymer/g metallocene·hr.

13 35. (new) The method of Claim 1 23, wherein the supported catalyst composition exhibits a productivity of from 1125 to 5180 g polymer/g metallocene·hr.

14 36. (new) The method of Claim 1 23, wherein the α-olefin monomers are propylene.

15 37. (new) The method of Claim 1 23, wherein a support and a fluoriding agent are contacted with one another at from 200°C to 600°C to produce the fluorided support composition.

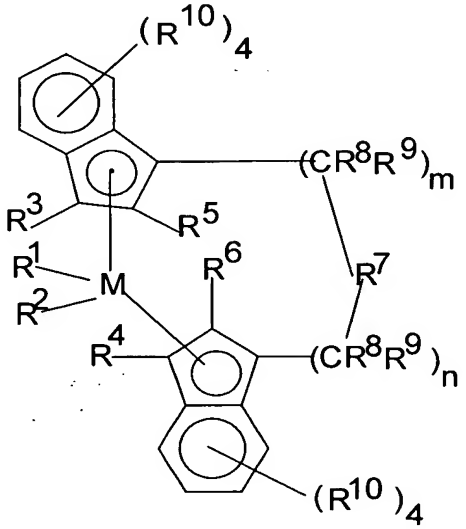
16 38. (new) A polyolefin produced by the method of Claim 1 23.

17 39. (new) An olefin polymerization method comprising the steps of contacting a polymerizable olefin with a supported catalyst composition comprising a fluorided support composition; and at least one highly fluorinated tris-arylborane bound to the fluorided support composition.

18 40. (new) The method of Claim 17 39, wherein the at least one highly fluorinated tris-arylborane is selected from tris-perfluorophenyl borane, trisperfluoronaphthyl borane, trisperfluorobiphenyl borane, tris(3,5-

di(trifluoromethyl)phenyl)borane, tris(di-t-butylmethylsilyl)perfluorophenylborane, and mixtures thereof.

41. (new) The method of Claim 39, wherein the support also comprises at least one metallocene represented by the following:

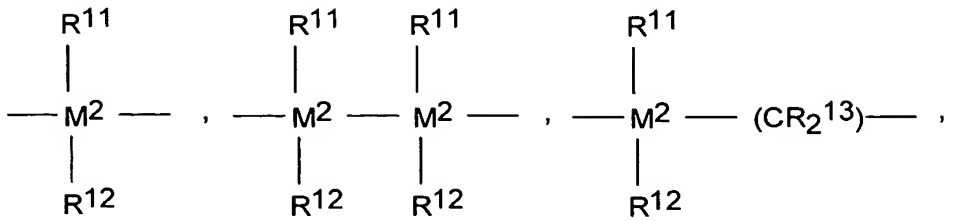


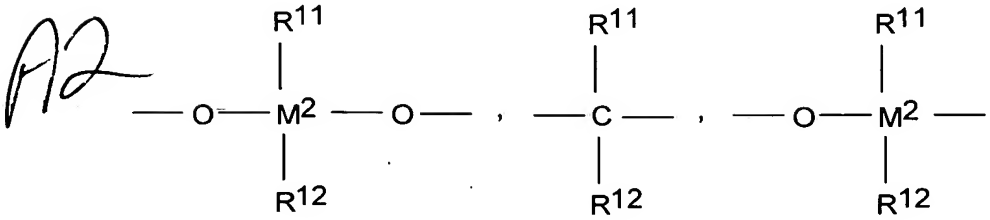
wherein M is titanium, zirconium, or halfnium;

R^1 and R^2 are identical or different, and are one of a hydrogen atom, a C_1-C_{10} alkyl group, a C_1-C_{10} alkoxy group, a C_6-C_{10} aryl group, a C_6-C_{10} aryloxy group, a C_2-C_{10} alkenyl group, a C_7-C_{40} arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, or a halogen atom;

R^5 and R^6 are identical or different, are one of a halogen atom, a C_1-C_{10} alkyl group, which may be halogenated, a C_6-C_{10} aryl group, which may be halogenated, a C_2-C_{10} alkenyl group, a C_7-C_{40} -arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, a $-NR_2^{15}$, $-SR^{15}$, $-OR^{15}$, $-OSiR_3^{15}$ or $-PR_2^{15}$ radical, wherein R^{15} is one of a halogen atom, a C_1-C_{10} alkyl group, or a C_6-C_{10} aryl group;

R^7 is





-B(R^{11})-, -Al(R^{11})-, -Ge-, -Sn-, -O-, -S-, -SO-, -SO_2-, -N(R^{11})-, -CO-, -P(R^{11})-, or -P(O)(R^{11})-;

wherein R^{11}, R^{12} and R^{13} are identical or different and are a hydrogen atom, a halogen atom, a C_1-C_{20} alkyl group, a C_1-C_{20} fluoroalkyl group, a C_6-C_{30} aryl group, a C_6-C_{30} fluoroaryl group, a C_1-C_{20} alkoxy group, a C_2-C_{20} alkenyl group, a C_7-C_{40} arylalkyl group, a C_8-C_{40} arylalkenyl group, or a C_7-C_{40} alkylaryl group; and wherein R^{11} and R^{12}, or R^{11} and R^{13}, together with the atoms binding them, can form ring systems;

M^2 is silicon, germanium or tin;

R^8 and R^9 are identical or different and have the meanings stated for R^{11};

m and n are identical or different and are zero, 1 or 2, m plus n being zero, 1 or 2; and

the radicals R^3, R^4, and R^{10} are identical or different and have the meanings stated for R^{11}, R^{12} and R^{13}.

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42. (New) The method of Claim 41, wherein R_1 and R_2 are methyl groups.

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43. (new) The method of Claim 39, having a fluorine concentration is in the range of from 0.01 to 10.0 millimoles of fluorine per gram of support.

22 (44). (new) The method of Claim 17 (39), having a fluorine concentration is in the range of from 0.6 to 3.5 wt% of the support.

23 (45). (new) The method of Claim 17 (39), wherein the fluorided support composition is selected from fluorided talc, clay, silica, alumina, magnesia, zirconia, iron oxides, boria, calcium oxide, zinc oxide, barium oxide thoria, aluminum phosphate gel, polyvinylchloride or substituted polystyrene, and mixtures thereof.

24 (46). (new) The method of Claim 17 (39), wherein the support and a fluoriding agent are contacted with one another at from 100°C to 1000°C to produce the fluorided support composition.

25 (47). (new) The method of Claim 17 (39), wherein a support and a fluoriding agent are contacted with one another at from 200°C to 600°C to produce the fluorided support composition.

26 (48). (new) The method of Claim 25 (47), wherein the fluoriding agent is selected from NH_4BF_4, $(NH_4)_2SiF_6$, NH_4PF_6, NH_4F, $(NH_4)_2TaF_7$, NH_4NbF_4, $(NH_4)_2GeF_6$, $(NH_4)_2SmF_6$, $(NH_4)_2TiF_6$, $(NH_4)_2ZrF_6$, MoF_6, ReF_6, GaF_3, SO_2ClF, F_2, SiF_4, SF_6, ClF_3, ClF_5, BrF_5, IF_7, NF_3, HF, BF_3, NHF_2 and NH_4HF_2 and mixtures thereof.

27 (49). (new) The method of Claim 17 (39), wherein the supported catalyst composition exhibits a productivity of from 919 to 5180 g polymer/g metallocene·hr.

28 (50). (new) The method of Claim 17 (39), wherein the supported catalyst composition exhibits a productivity of from 1125 to 6012 g polymer/g metallocene·hr.

51. (new) The method of Claim 39, wherein the supported catalyst composition exhibits a productivity of from 1125 to 5180 g polymer/g metallocene·hr.

52. (new) A polyolefin produced by the method of Claim 39.